GOT-1150T

Fanless Touch Panel Computer with 15" TFT LCD

User's Manual

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ESD Precautions

Integrated circuits on computer boards are sensitive to static electricity. To avoid damaging chips from electrostatic discharge, observe the following precautions:

- Do not remove boards or integrated circuits from their anti-static packaging until you are ready to install them.
- Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This helps to discharge any static electricity on your body.
- Wear a wrist-grounding strap, available from most electronic component stores, when handling boards and components.

Packing List

In the whole set of GOT-1150T there are items as listed below:

1. GOT-1150T x 1 unit
2. Accessory kit which includes:
   (1) HDD cover screws x 4 pieces and 1 spare piece
   (2) HDD cushions x 4 pieces and 1 spare piece
   (3) Panel mounting clamper x 10 pieces and 1 spare piece
   (4) Panel mounting screws x 10 pieces and 1 spare piece
   (5) PC/104 plus expansion board standoff x 4 pieces
   (6) 3-pin power connector x 1 piece
   (7) GOT-1150T support CD x 1 piece
   (8) 1 meter 9-pin to 9-pin null modem cable x 1 piece*1
   (9) Y-cable x 1 piece to simultaneously connect mouse and keyboard
   (10) CompactFlashTM to IDE adapter board x 1 piece
   (11) 44-40-40 pins IDE cable x 1 piece

Safety Instructions

1. Read these safety instructions carefully.
2. Keep this installation reference guide for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.
4. For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
12. Never pour any liquid into an opening. This could cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14. If any of the following situations arises, get the equipment checked by service personnel:
    a. The power cord or plug is damaged.
    b. Liquid has penetrated into the equipment.
    c. The equipment has been exposed to moisture.
    d. The equipment does not work well, or you cannot get it to work according to the installation reference guide.
    e. The equipment has been dropped and damaged.
    f. The equipment has obvious signs of breakage.
15. DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20•‹ C (-4•‹ F) OR ABOVE 60•‹ C (140•‹ F). IT MAY DAMAGE THE EQUIPMENT. The sound pressure level at the operator•fs position according to IEC 704-1:1982 is equal to or less than 70 dB(A)

Table of Contents

Chapter 1 General Information 1

1.1 Introduction 2

1.2 Specifications 3

1.2.1 System kernel 3

1.2.2 I/O ports 3

1.1.3 Storage 4

1.1.4 Safety and environment 4

1.3 LCD specifications 5

1.4 Touchscreen specifications 6

1.5 Power 6

1.6 I/O ports arrangement 6

1.7 Mounting 7

1.7.1 Panel mounting 7

1.7.2 Wall mounting/desktop stand 8

1.8 Exploded diagram 9

1.9 Dimensions and cutout 10

Chapter 2 System Quick Starting 11

Chapter 3 The Engine of the GOT-1150T 17

3.1 Introduction 18

3.2 Main board 18

3.2.1 Connector pin assingments 19

3.3 GOT-1150T I/O board 20

Chapter 4 System Limitations 23
4.1 Compatibility with IBM MicroDrive 24
4.2 System Hibernation and Resuming 25
4.3 Compatibility with IDE CD-ROM Drives 25
4.4 USB Devices 26
4.5 Power Management 26

Chapter 5 System Tuning 27
5.1 LCD contrast tuning 28
5.1.1 LCD brightness tuning 28
5.2 Touchscreen calibration 29
5.2.1 DOS/Windows Family 29

Chapter 6 Maintenance 31
6.1 CPU board replacement 32
6.2 Fuse replacement 34

Appendix A Serial Port Settings 35
A.1 Baud Rate Settings (SW1) 36
A.2 Data Format/RS-422 Control Settings 37
A.3 COM3 Mode Selecting 37

Appendix B Watchdog Timer Programming Example 39
B.1 Watchdog timer programming example 40

Appendix C Windows 2000 Touch Screen Installation 41
C.1 Touchscreen driver in Windows 2000 42

Appendix D Fuse Specifications 51
D. Fuse Specifications 52

Appendix E HDD Module Assembling/ Dismounting Guide 53
E.1 Item List 54
E.2 Item List 55

Appendix F BIOS Setting 57
F.1 Boot Devices 58
F.2 PC Status Monitoring 59

Figures

Figure 1.6-1 I/O ports arrangement 7
Figure 1.7-1 Panel mounting 7
Figure 1.8-1 Exploded diagram 9
Figure 1.9-1 Dimensions and cutout 10

Figure 2-1 Install CompactFlash memory card 12
Figure 2-2 Power connector and power lines 13
Figure 2-3 Power connector pin assignment 13
Figure 2-4 Plug the power lines to the system power receptor. 14
Figure 2-5 Turn on power switch 14

Figure 3.2-1 GOT-1150T main board 18
Figure 3.3-1 GOT-1150T I/O board 20

Figure 5.1-1 Adjust LCD contrast 28
Figure 5.1-2 Remove the CPU Board cover 28
Figure 5.1-3 Adjusting the LCD brightness 29

Figure 6.1-2 Remove the CPU board cover 32
Figure 6.1-1 CPU board cover 32
Figure 6.1-3 Remove the CPU board 33
Figure 6.2-1 Replace the fuse 34

Figure C-1 Hardware 42
Figure C-2 Device manager 43
Figure C-3 Uninstall the driver 44
Figure C-4 Mouse properties 45
Figure C-5 Update driver 46
Figure C-6 Select driver from known list 47
Figure C-7 Find out TouchScreen in the manufacturers list 48
Figure C-8 Re-install the driver 49
Figure C-9 Finish installation of touchscreen driver 50

Tables

Table 1.3-1 LCD specifications 5
Table 1.4-1 Touchscreen specifications 6

Table 3.2-1 GOT-1150T main board connector/jumper list 18
Table 3.2-2 J1 RTC control jumper 19
Table 3.3-1 GOT-1150T I/O board connector/jumper list 21

CHAPTER 1

General Information

This chapter gives background information on the GOT-1150T.

Sections include:

- Introduction
- Specifications
- LCD Specifications
- Touchscreen specifications
- Power
- I/O ports
- Mounting
- Exploded diagram
- Dimensions and cutout

1.1 Introduction

The GOT-1150T touch panel computer is a revolutionary product of HMI (Human Machine Interface). This 15" display operator interface is a x86-based platform with these key features:

- All in on platform: the CPU, DRAM are integrated. It is a plug-and-play machine compared with those so-called panel PCs.
- Slim but robust: the GOT-1150T is very thin (50 mm thickness); nevertheless its Mg-Al bezel provides amazing structural strength and EMI reduction.
- Excellent display: the high brightness TFT LCD display fits the industrial demand well.
- Fan-less and modular CPU board: the introduction of low power processor prevents this system from unreliable fans. In addition, the modular design facilitates the maintenance or possible upgrade on the CPU board.
- Powerful communication capability: the GOT-1150T provides serial ports, parallel port, Ethernet, USB and PC/104 plus expansion slot. Almost all communications devices can access to this system.

1.2 Specifications

1.2.1 System kernel

- CPU: Transmeta Crusoe™ TM5400 (clock rate 500 MHz)
- BIOS: Award 256 KB flash memory
- South bridge: VIA 82C686B
- VGA: Silicon Motion SMI710/712 VGA/LCD controller; PCI 2.1 compliant; 4 MB embedded DRAM
- DRAM: built-in 128 MB SDRAM; among which 16 MB is occupied by CPU (Code Morphing TM Software) and the other 112 MB is avail-able for users
- Ethernet: NS DP83815 10/100Base-T Ethernet controller; IEEE 802.3u protocol compatible
- Watchdog timer: MAX706 watchdog timer; 1.6 second timeout period
- IDE: 1 EIDE channel supports one 2.5" IDE HDD and one Compact-Flash card simultaneously
- Floppy diskette: External from USB

1.2.2 I/O ports

- 1 RJ-45 Ethernet port
- 1 parallel port: supports EPP/ECP modes
- 1 DB-15 VGA out port
- 2 audio jacks: one Line-Out for connecting external speakers, and one MIC for voice input
- 1 PS/2 port: for external mice. It takes the Y-cable if simultaneous connection of mouse and keyboard is required
- 2 USB ports
- 3 serial ports: 2 DB-9 RS-232 (COM1/COM2), COM3 is a DIP switch configurable RS-232/422/485 port with automatic data flow control function

- 1 type-II CompactFlash™ slot
- 2 type-II PCMCIA slots: supports IBM MicroDrive as data storage

1.1.3 Storage

The GOT-1150T provides one EIDE channel for one 2.5" 44-pin HDD and one CompactFlash card. The system boot-up sequence is:

1. HDD and CompactFlash exist simultaneously: the system will boot from the HDD. The HDD must be set as master. If the HDD does not contain operating system, the GOT-1150T will automatically boot from the CompactFlash.
2. HDD exists only: the system will boot from the HDD
3. CompactFlash card exists only: the system will boot from the CompactFlash
4. The GOT-1150T also support IBM MicroDriveTM. However, a MicroDrive cannot be used as bootup device due to its intrinsic limitation.

1.1.4 Safety and environment

Safety

- FCC class A and CE certificated
- BSMI certificated
- The front bezel is compliant with NEMA 4

Environment

- Operating temperature: 0~50 degrees Celsius
- Storage temperature: -20~60 degrees Celsius
- Humidity: 10~95% @ 40°C relative humidity (non-condensing)
- Vibration: 10~18 Hz: 1.5mm peak-to-peak displacement; 18~500 Hz: at least 0.5 acceleration

1.3 LCD specifications

Display Type	TFT color LCD
Size (Diagonal)	15"
Maximum Resolution	1024 x 768 (XGA)
Maximum Colors	1677 million (true color)
Pixel pitch (WxH, mm)	0.297 x 0.297
Vie wing angle	140
Luminance (cd/m^2)	350
Contrast ratio	250
Operating temperature (°C)	0 ~ 50 (ambient)
VR control	Brightness adjustable
Backlight	4 CCFL replaceable
Backlight MTTF	50,000 hours

Table 1.3-1 LCD specifications

Notice: There might be several bright or dark pixels on the LCD. This comes from the production of the LCD. Such phenomenon is claimed to be normal according to the LCD manufacturers.

1.4 Touchscreen specifications

Type	Resistive
Base glass construction	Tempered Glass
Resolution	Continuous
Light Transmission	75% typical
Controller	PS/2 interface
Power Rating	3.3 to 5 V_{DC}
Software driver	Windows 9x/Me/NT/2000; Windows CE (embedded)
Durability	1 million touches for single point

Table 1.4-1 Touchscreen specifications

1.5 Power

- Input voltage: 24V_{DC} (the fuse will be open circuit as input level exceeds 33V_{DC})
- Maximum current: 2 A

1.6 I/O ports arrangement

The GOT-1150T has 3 serial ports, 2 parallel port, 1 USB port, 1 PS/2 port, 1 RJ-45 LAN port , 1 VGA port, 2 audio jacks, 2 PCMCIA slots and a PC/104+ expansion slot. The arrangement of these ports is shown in Figure 1.6-1.

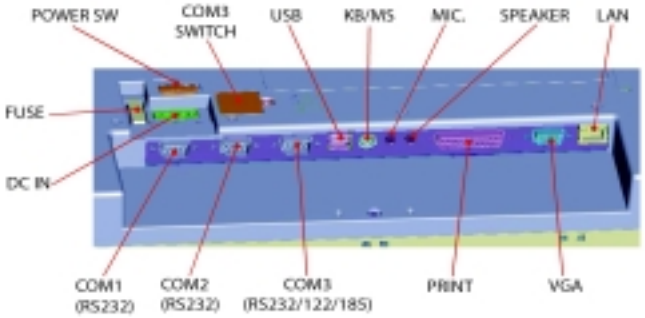


Figure 1.6-1 I/O ports arrangement

1.7 Mounting

1.7.1 Panel mounting

1. There is a piece of adhesive waterproof gasket on the Mg-Al front bezel. Make sure the waterproof gasket is in position before install the GOT-1150T to the panel opening.
2. Install the GOT-1150T to the panel opening.
3. Find out the ten clampers and ten long screws in the accessory pack. Hook those clampers to those holes around the four sides of the bezel. Insert the screws to every clamper and fasten them. These screws will then push on the mounting panel and fix the unit.
4. The mounting panel thickness is suggested to be less than 6mm (0.236 inch).

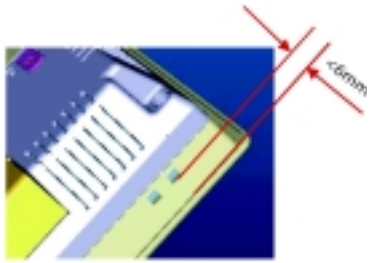
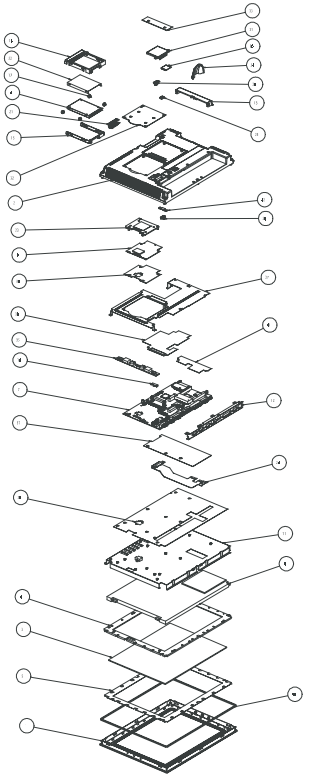


Figure 1.7-1 Panel mounting

1.7.2 Wall mounting/desktop stand

There are two pairs of threaded holes on the sides of the front bezel. They are used for wall mounting or desktop mounting. Please contact with local AXIOMTEK sales representatives for these mounting kits.

1.8 Exploded diagram



ITEM	PART NO	PART NAME	Q'TY	REMARK
1	1962560060	FRONT PANEL	1	
2	1997001390	REAR COVER	1	
3	9889000358	TOUCH SCREEN	1	
4	1962560020	T/S SUPPORT BRACKET	1	
5	2130402530	WATERPROOF FOR T/S	1	
6	1331015080	LCD DISPLAY	1	
7	9693156000	I/O BOARD	1	
8	*****	HDD DEVICE	1	
9	9693236500	CPU CARD(TransMeta 5400)	1	
10	1752100400	FUSE COVER	1	
11	1962560040	I/O SUPPORT HOLDER BRACKET	1	
12	1962560030	I/O BRACKET	1	
13	1997001410	CF/PCMCIA DOOR	1	
14	1997001420	HDD HOUSING	1	
15	1962560050	HDD HOLDER BRACKET	1	
17	1990000710	HDD CUSHION RUBBER	4	
21	1701440022	HDD FPC CABLE	1	
22	1971560000	INSULATOR FOR HDD	1	
23	1961000740	HEAT SINK FOR CPU	1	
24	1701800230	LCD FPC CABLE	1	
25	1997001430	HDD HOOK BUTTON	1	
26	1997001440	HDD HOOK	1	
27	1962560050	REAR COVER PLATE	1	
28	1997001380	POWER BUTTON	1	
30	1997001400	DIP SWITCH COVER	1	
31	1997001460	SAFT COVER	1	
32	1962560010	CPU COVER	1	
33	1962560070	BRACKET FOR 104+	1	
34	1997001450	STAND HOLDER	1	
35	1254100340	INVERTER BOARD	1	
36	1971000660	INSULATOR FOR I/O SUPPORT BKT	1	
37	1971560010	INSULATOR FOR LCD FPC	1	
38	1971560020	INSULATOR FOR CPU AREA	1	
39	1971560030	INSULATOR FOR HDD PROTECT AREA	1	
40	2130402520	WATERPROOF FOR FRONT PANEL	1	
41	1971560040	INSULATOR FOR CF/PCMCIA AREA	1	
42	1962560080	HDD HOOK BRACKET	1	

Figure 1.8-1 Exploded diagram

1.9 Dimensions and cutout

- Weight: 3.8kg (with one 2.5" HDD)
- Dimension: 383 x 307 x 55 mm (WxHxD)
- Cutout: 373.5 x 297.5 mm (suggested)

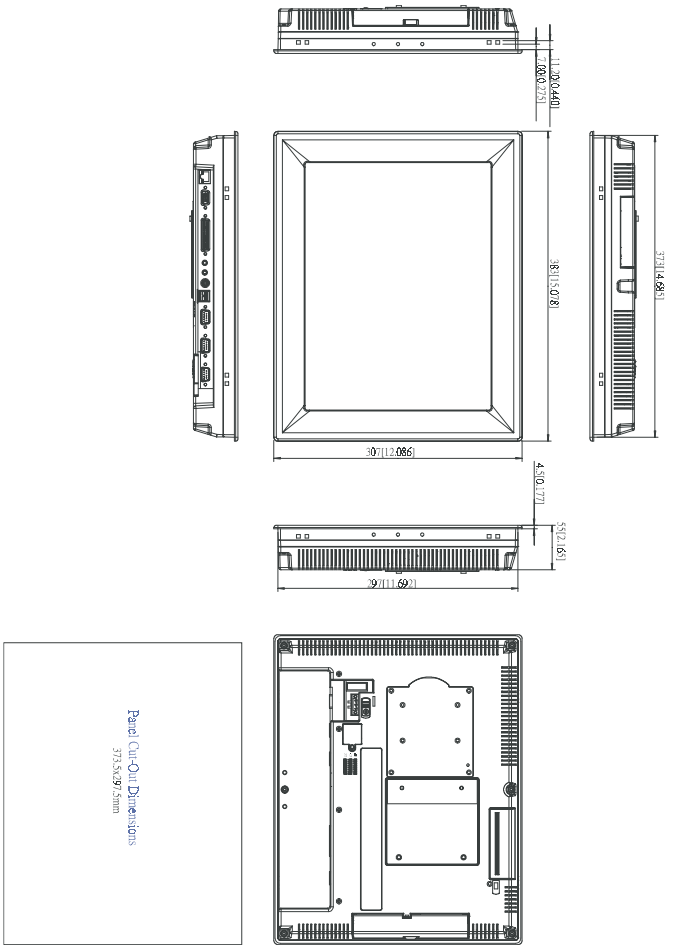


Figure 1.9-1 Dimensions and cutout

CHAPTER 2

System Quick Starting

This chapter provides a brief explanation for operating the GOT-1150T. With these step-by-step guidelines it's easy to make the GOT-1150T start working.

Step 1: Unpack the GOT-1150T package. Please check the packing list at the beginning of this manual.

Step 2a: Install a 2.5" HDD containing certain operating system (and even application programs) on the GOT-1150T. Please refer to section 1.2.3 for the boot-up sequence. The Appendix E depicts the details to install hard disk driver.

Warning: Do not turn on the system power before the HDD is correctly fasten to the HDD cover

Step 2b: Alternatively install a CompactFlash containing Windows CE or other operating system. AXIOMTEK provides optional Compact-Flash memory cards with Windows CE OS.

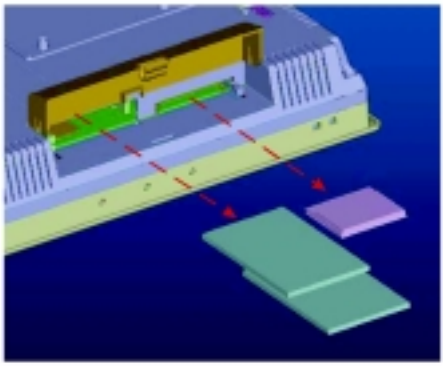


Figure 2-1 Install CompactFlash memory card

Warning: Though the CompactFlash memory card is supposed to be hot swappable, it is suggested to turn off system power as plug in or pull out the card. Thus the potential data loss can be avoided.

Step 3: Connect the power connector to the 24VDC power lines. The power lines can either be of some power adapter or in-house power source.

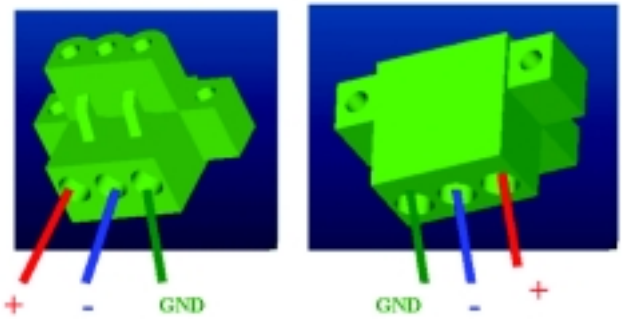


Figure 2-2 Power connector and power lines

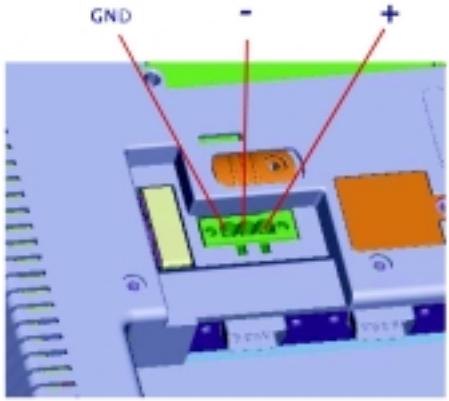


Figure 2-3 Power connector pin assignment

Warning: If the power lines are not connected to correct pins, the system may be damaged as the power is turned on.

Step 4: Plug the power lines to the system power receptor.

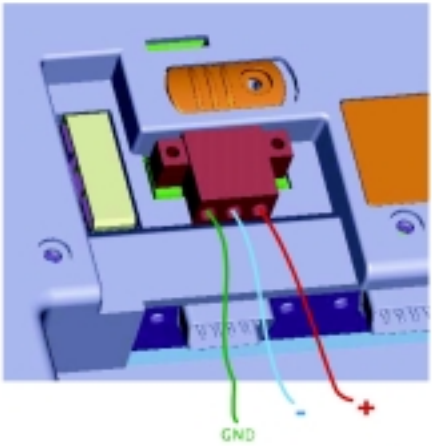


Figure 2-4 Plug the power lines to the system power receptor.

Step 5: Turn on the system power switch.

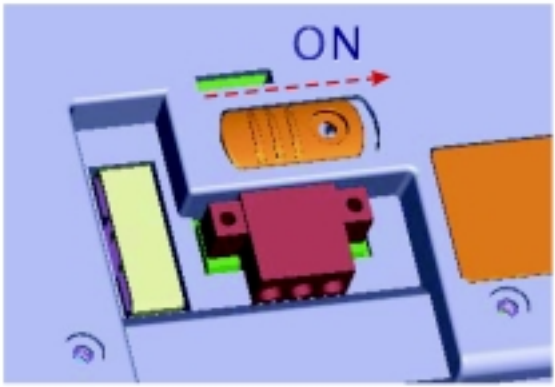
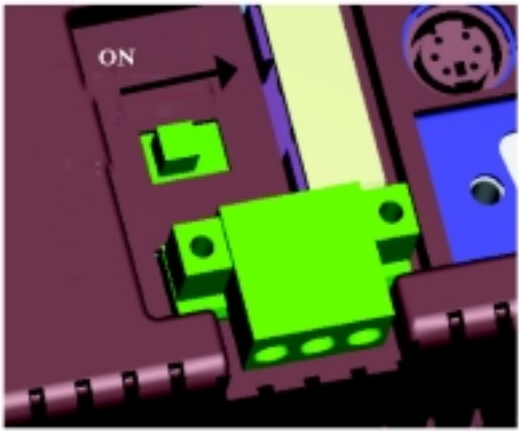


Figure 2-5 Turn on power switch

Step 6: Calibrate touchscreen. The detailed procedure is described in section 5.2.



CHAPTER 3

The Engine of the GOT-1150T

The operating engine of the GOT-1150T is composed of two PC boards: the main boards and the I/O boards

3.1 Introduction

The engine of the GOT-1150T is constructed by the combination of two PCBA—one main board and one I/O board. Such combination makes system customization feasible.

3.2 Main board

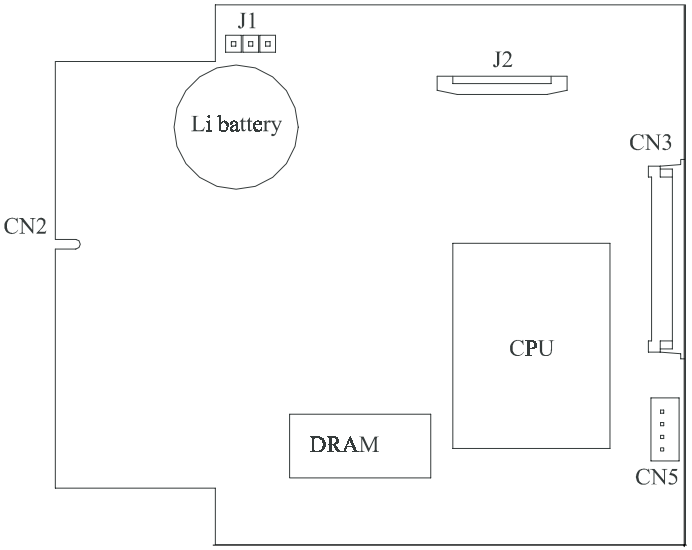


Figure 3.2-1 GOT-1150T main board

Label	Function
CN2	Card PC connector (SODIMM 144 Pin)
CN3	Card PC connector (FPC 50 Pin)
CN5	Available for free use
J1	RTC control jumper (3 Pin)
J2	TDM connector (30 Pin)

Table 3.2-1 GOT-1150T main board connector/jumper list

3.2.1 Connector pin assingments

1-2 short	RTC battery on (default)
2-3 short	Clear BIOS

Table 3.2-2 J1 RTC control jumper

3.3 GOT-1150T I/O board

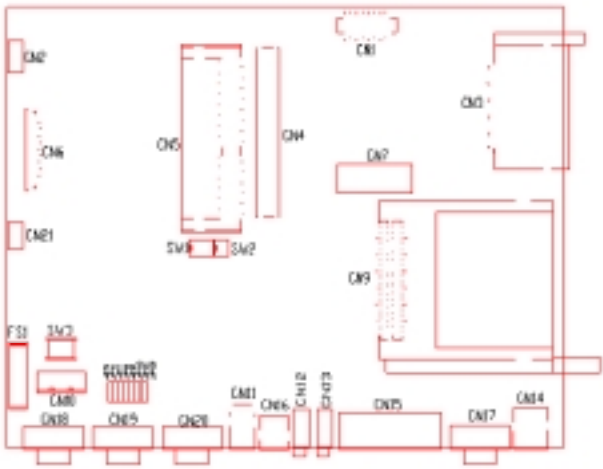


Figure 3.3-1 GOT-1150T I/O board

Label	Function
CN1	Flat panel display connector
CN2	Inverter power connector
CN3	Compact flash connector
CN5	PC104 Plus connector (30x4 Pin)
CN6	Card PC connector (SODIMM 144Pin)
CN7	Card PC connector (ZIF 50 Pin)
CN8	IDE connector (40Pin)
CN9	PCMCIA connector
CN10	Power connector
CN11	USB connector
CN12	Microphone connector
CN13	Audio out connector
CN14	LAN connector
CN15	Parallel port connector (25 Pin)
CN16	PS2 mouse/keyboard connector
CN17	VGA out connector
CN18	COM1 connector
CN19	COM2 connector
CN20	COM3 (RS232/RS422/RS485) connector
CN21	Touch screen connector
SW1	RS422/RS485 setting switch
SW2	RS422/RS485 setting switch
SW3	System power switch connector
JP5~JP12	COM3 (RS232/422/485) setting jumper
FS1	Fuse connector

Table 3.3-1 GOT-1150T I/O board connector/jumper list

CHAPTER 4

System Limitations

In compact and highly integrated systems like the GOT-1150T, there are several limitations to operate. This chapter intends to unveil them to avoid confusing users.

4.1 Compatibility with IBM MicroDrive

The IBM MicroDrive is one of the newly developed storage devices in these years. Unlike other devices of similar form factors, the IBM MicroDrive is defacto a hard disk driver rather than solid-state disk. It therefore provides a storage solution of lower cost-per-megabyte than SSD such as CompactFlash card or DiskOnChip. This is especially crucial for embedded applications.

The GOT-1150T is designed to be compatible with IBM MicroDrive. IBM offers MicroDrive in the form factor of PCMCIA by an additional adapter card. Inserted into PCMCIA slots of GOT-1150T then it works.

However, the MicroDrive on the GOT-1150T cannot be used to boot up. It is because of the design of the controlling circuitry of the GOT-1150T that the MicroDrive is simply a storage device. The data bus for MicroDrive to boot up requires I/O mode or memory mode. On contrast, the data bus inside the GOT-1150T is of IDE mode. Do not attempt to start the operating systems on MicroDrive.

4.2 System Hibernation and Resuming

In some operating systems such as Microsoft Windows 2000 and Windows Me, there is function to set the system hibernated. When the function is activated via operating system, the hardware control-ling circuitry suspends most operations of system components. This makes the system get into power saving mode, or “deep sleep”. Then it can be resumed by request. Unlike turning off power, hibernation lets the system still keep data in RAM.

Due to the special CPU the GOT-1150T uses, the resuming process from hibernation takes some 20 seconds. During the period the LCD display of the GOT-1150T looks dark and shows nothing. Do not attempt to turn off the power or reset the system at that time, or data may be lost.

4.3 Compatibility with IDE CD-ROM Drives

The GOT-1150T is designed to have no internal CD-ROM drive since it is supposed to be installed in embedded applications. Nevertheless, CD-ROM is necessary from time to time—especially in the case of installing new software package.

An external IDE CD-ROM drive can be used in the GOT-1150T by applying the CompactFlash-to-IDE adapter card and IDE cable bundled in the accesso-ry box. Insert the adapter board to the CompactFlash slot, and connect the CD-ROM to the board by the IDE cable. Give the CD-ROM an external power supply and it works.

CD-ROM is a very popular device and offered by hundreds of independent hardware vendors (IHVs) around the world. AXIOMTEK tests most of available CD-ROM drives, but it is still possible that some of them may have compati-bility problem with the GOT-1150T.

4.4 USB Devices

There are two USB ports on the GOT-1150T. The GOT-1150T has proved to work well with USB floppy disk drives and CD-ROM drives. Note that all USB devices require drivers to operate normally. They are not plug-and-play at all. Furthermore, so far there is not USB driver for DOS. This implies that it is impossible to have FIRST TIME SETUP of Microsoft Windows from USB CD-ROM.

4.5 Power Management

The GOT-1150T supports APM (Advanced Power Management), but it does not support ACPI (Advanced Configuration and Power Inter-face).

CHAPTER 5

System Tuning

From time to time it is necessary to tune system settings from the defaults. The most common ones are included in this chapter.

5.1 LCD contrast tuning

5.1.1 LCD brightness tuning

The display brightness of the GOT-1150T is designed to be adjustable. Remove the screw on the CPU board cover. Then slide the CPU board cover toward the PC/104+ slot. Take away the CPU board cover.

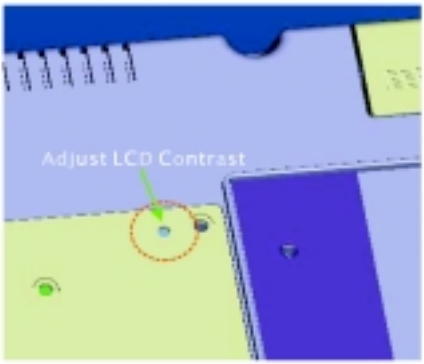


Figure 5.1-1 Adjust LCD contrast

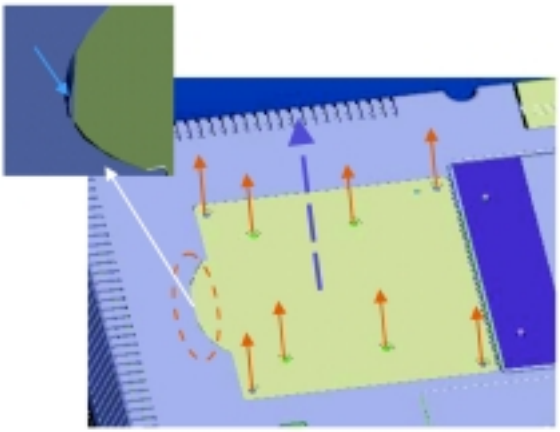


Figure 5.1-2 Remove the CPU Board cover

There is a variant resistor near the upper edge of the opening. Use a blade screwdriver to adjust the LCD brightness so that it looks good in certain surrounding lighting.

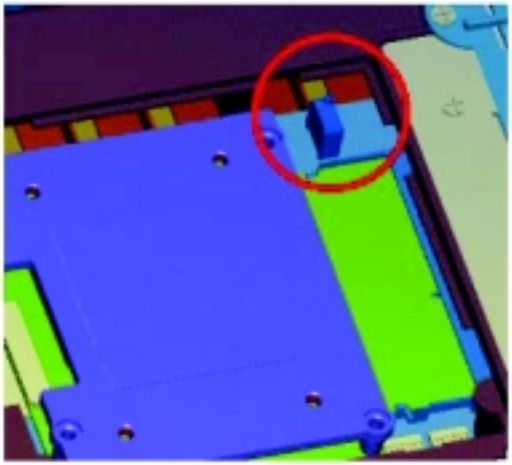


Figure 5.1-3 Adjusting the LCD brightness

5.2 Touchscreen calibration

5.2.1 DOS/Windows Family

Please find out the DOS and Windows 95/98 touchscreen drivers in the support CD. The GOT-1150T touchscreen drivers support DOS/Windows 9x/Windows NT/Windows 2000/Windows XP. Refer to Appen-dix C for detailed setting on the Windows 2000 touchscreen driver.

CHAPTER 6

Maintenance

In practice users may need on site maintenance. This chapter covers several simple repairings that can be done by qualified technicians.

The GOT-1150T is designed to be modular, slim and lightweight for easier maintenance. The following sections are dedicated to describe how a qualified technician can replace major components.

6.1 CPU board replacement

Step 1: Remove the screw on the CPU board cover.

Step 2: Slide the CPU board cover toward the opposite side of the I/O ports.

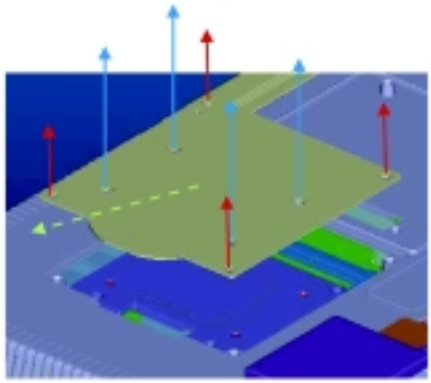


Figure 6.1-1 CPU board cover

Step 3: Take away the CPU board cover.

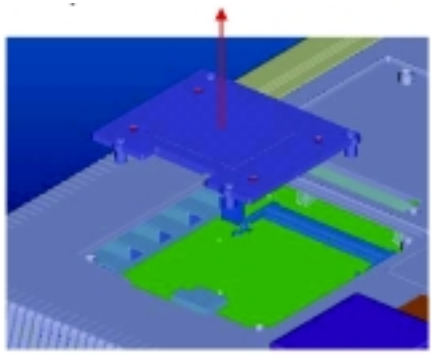


Figure 6.1-2 Remove the CPU board cover

Step 4: The CPU board is now visible. It connects to the I/O board by a 144-pin SO-DIMM connector and a 50-pin FPC connector.

Step 5: Use a pair of tweezers to loosen the 50-pin FPC connector, and release the FPC.

Step 6: Bend outward the two metal latches of the SO-DIMM connec tor by thumbs. The free end of the CPU board would swing up. Pull out the CPU board.

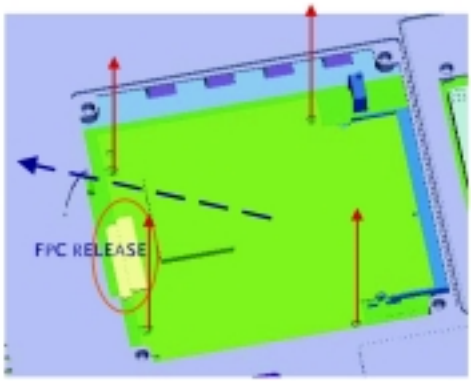


Figure 6.1-3 Remove the CPU board

Step 7: Insert a new CPU board to the SO-DIMM connector.

Step 8: Push down and lock the CPU board.

Step 9: Use a pair of tweezers to insert the 50-pin FPC to the connector on the CPU board. Then tighten the connector.

Step 10: Replace the CPU board cover and fasten the screw.

Warning: The CPU cover is used as the cooling media of the CPU. Thus it is usually of higher temperature than other parts of the system. Be careful not to touch this area without proper protection.

6.2 Fuse replacement

Step 1: Remove the fuse cover.
Step 2: Replace the damaged fuse with a new one.
Step 3: Replace the fuse cover.

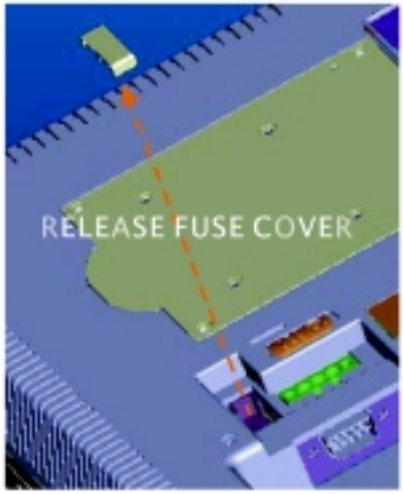


Figure 6.2-1 Replace the fuse

Warning: 1. Do not replace the fuse unless it is damaged.
2. Do not replace the fuse with a different rating.

APPENDIX A

Serial Port Settings

Serial Port Settings

The COM3 serial port on the GOT-1150T is selectable RS-232, RS-422 or RS-485. This port is designed with auto data flow control capability. That is to say, when the two wired RS-485 communication is activated, the GOT-1150T can automatically detect the data flow direction at this port. Its setting are are selected by DIP switches SW1, SW2, and jumpers JP5~JP12. These two switches are located near the lower edge of the opening when the CPU board cover is removed, and the JP5~JP12 are just beside the 24VDC power connector.

A.1 Baud Rate Settings (SW1)

Baud Rate	1	2	3	4	5	6	7	8
1200 bps	●	○	○	○	○	○	○	○
2400 bps	○	●	○	○	○	○	○	○
4800 bps	○	○	●	○	○	○	○	○
*9600 bps	○	○	○	●	○	○	○	○
19.2 Kbps	○	○	○	○	●	○	○	○
38.4 Kbps	○	○	○	○	○	●	○	○
57.6 Kbps	○	○	○	○	○	○	●	○
115.2 Kbps	○	○	○	○	○	○	○	●

● = On ○ = Off *= Default

A.2 Data Format/RS-422 Control Settings

Function	1	2	Data Format	3	4
RS422	●	○	9 bits	○	○
			* 10 bits	●	○
RTS Control	○	●	11 bits	○	●
			12 bits	●	●

● = On ○ = Off *= Default

A.3 COM3 Mode Selecting

Beside the $24V_{DC}$ power connector there is a small plastic lid fastened by a screw. After removing the lid there appears a set of jumpers which allows selecting mode of COM3:

	RS485
	RS422
	RS232

APPENDIX B

Watchdog Timer Programming Example

B.1 Watchdog timer programming example

The watchdog timer built in the GOT-1150T is a useful aid to reduce system down time-especially for those operating systems not reliable enough. There is a counter inside the watchdog timer. If the system does not constantly clear the counter within the timeout period, the watchdog timer would initialize a system reset.

The following example program in assembly language gives hint to utilize the watchdog timer under operating systems such as DOS, Windows 9x/ NT, etc.

Step 1: activate the watchdog timer

```
mov dx, 404Ch
in al, dx
and al, NOT 80h                ; GPO7 to low
out dx, al
```

Step 2: clear the watchdog timer

```
mov dx, 404Ch
in al, dx
or al, 80h                     ; GPO7 to high
out dx, al
```

Step 3: re-trigger the watchdog timer

If the timer will not count the GP07 is kept high. To re-trigger the watch-dog timer:

```
mov dx, 404Ch
in al, dx
and al, NOT 80h                ; GPO7 to low
out dx, al
```

Notice: the utility to enable/disable the watchdog timer under Windows CE is built in the AXIOMTEK Windows CE for GOT-1150T.

APPENDIX C

Windows 2000 Touch Screen Installation

C.1 Touchscreen driver in Windows 2000

Under the Windows 2000 operating system, the touchscreen driver is somewhat sophisticated. After installing the touchscreen driver, the system would restart automatically. And the following fine tuning is required:

Step 1: Find out the touchscreen driver that is on the GOT-1150T support CD. Execute the setup program. It will request a system reset as the setup procedure is completed.

Step 2: Click “Start/Settings/Control Panel”; double-click “System” and go to the “Hardware” page.

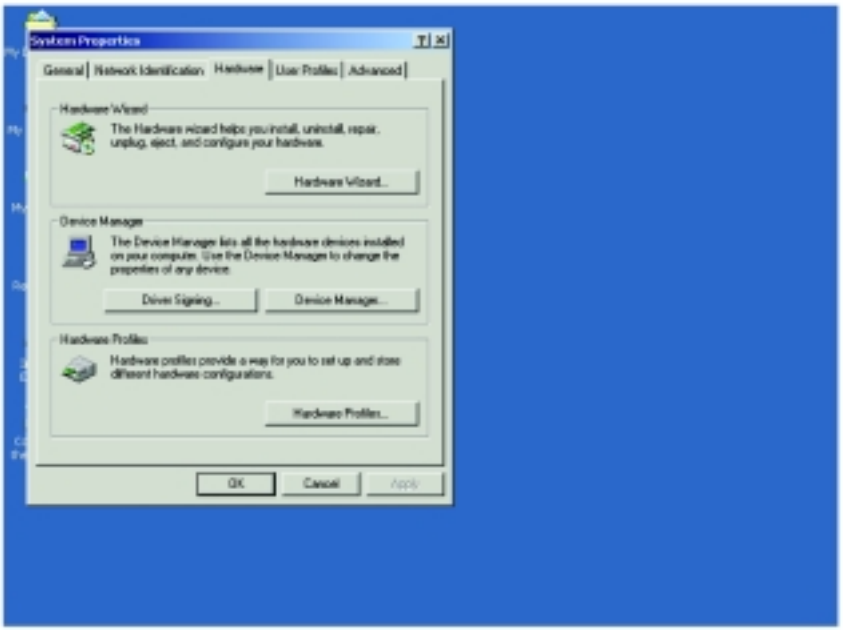

System Properties
General
Network Identification
Hardware
User Profiles
Advanced
Hardware Wizard
The Hardware wizard helps you install, uninstall, repair, unplug, eject, and configure your hardware.
Hardware Wizard...
Device Manager
The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.
Driver Signing...
Device Manager...
Hardware Profiles
Hardware profiles provide a way for you to set up and store different hardware configurations.
Hardware Profiles...
OK
Cancel
Apply

Figure C-1 Hardware

Step 3: Click the “Device Manager…” button.

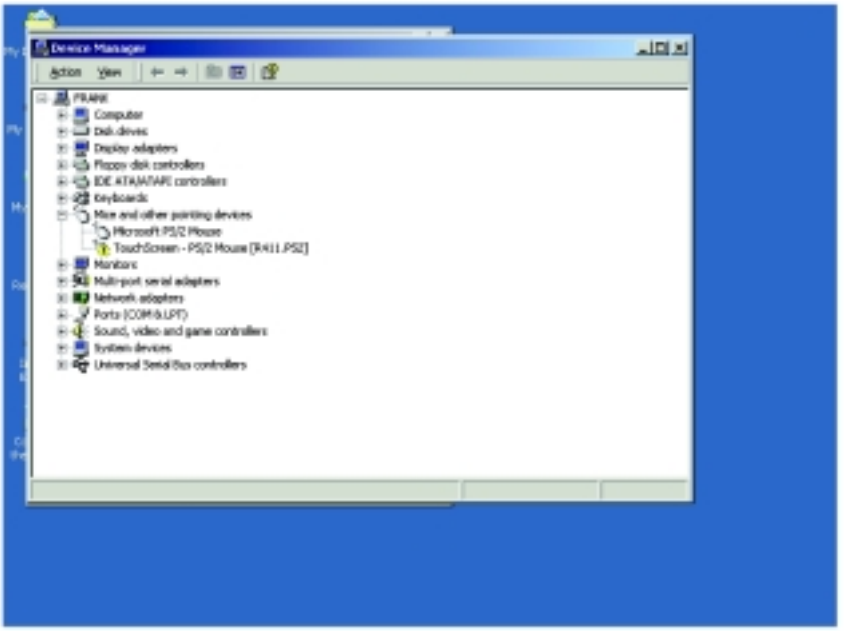


Figure C-2 Device manager

Step 4: In the sub-category of “Mice and other pointing devices” there is a exclamation mark appearing at the beginning of the line of touchscreen. Move the cursor to this line “Touch-Screen - PS/2 Mouse [R411.PS2] and press right button of the mouse. Choose “Uninstall”.

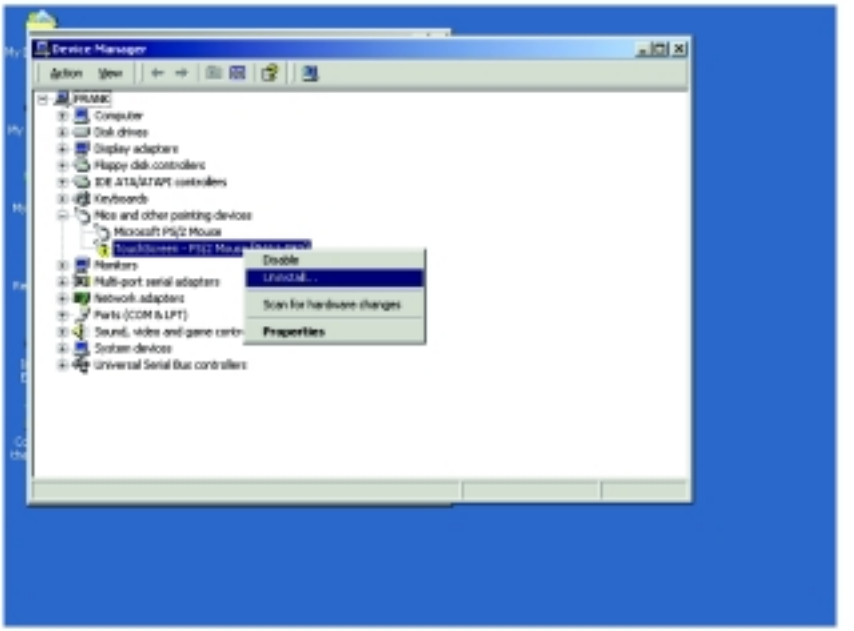


Figure C-3 Uninstall the driver

Step 5: Then move the cursor to the “Microsoft PS/2 mouse” or “Other PS/2 compatible mouse), press the right button of the mouse. Select “Properties”

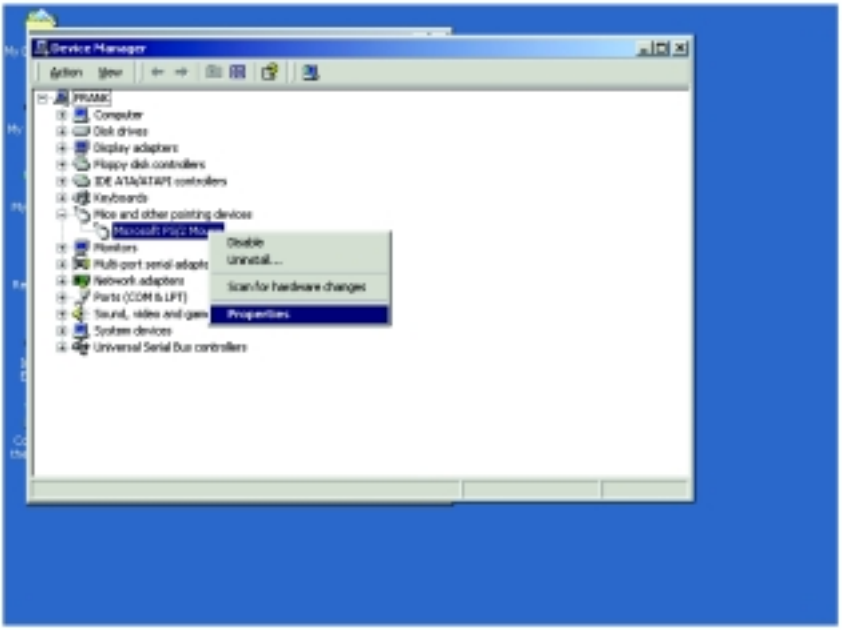


Figure C-4 Mouse properties

Step 6: Go to the “Driver” page, and click the “Update Driver” button.

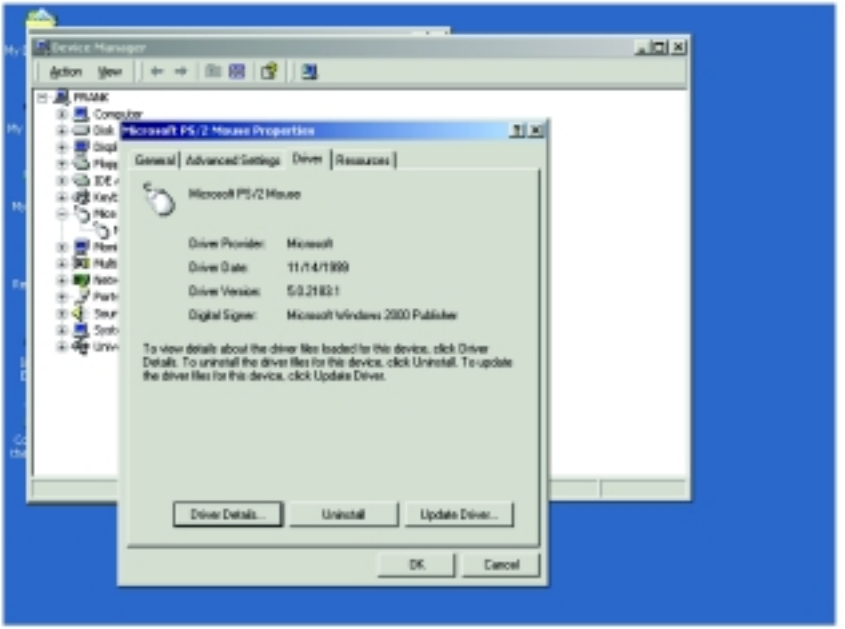

Device Manager
Action View
Microsoft PS/2 Mouse Properties
General Advanced Settings Driver Resources
Microsoft PS/2 Mouse
Driver Provider: Microsoft
Driver Date: 11/14/1999
Driver Version: 5.0.2183.1
Digital Signer: Microsoft Windows 2000 Publisher
To view details about the driver files loaded for this device, click Driver Details. To uninstall the driver files for this device, click Uninstall. To update the driver files for this device, click Update Driver.
Driver Details...
Uninstall
Update Driver...
OK
Cancel

Figure C-5 Update driver

Step 7: Click “Next” button. Choose the “Display a list of the known drivers for this device…” radial button. Click “Next” button.

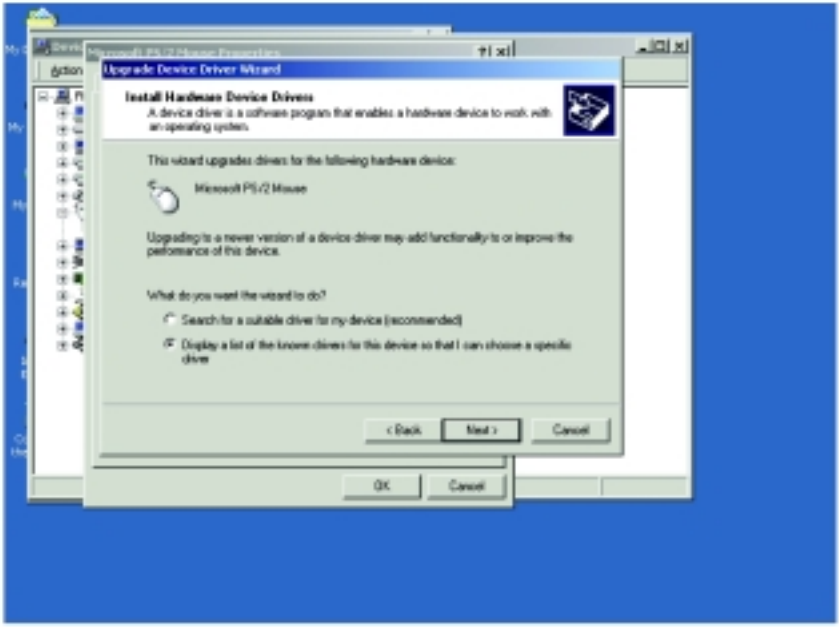

Upgrade Device Driver Wizard
Install Hardware Device Drivers
A device driver is a software program that enables a hardware device to work with an operating system.
This wizard upgrades drivers for the following hardware device:
Microsoft PS/2 Mouse
Upgrading to a newer version of a device driver may add functionality to or improve the performance of this device.
What do you want the wizard to do?
Search for a suitable driver for my device (recommended)
Display a list of the known drivers for this device so that I can choose a specific driver
< Back
Next >
Cancel
OK
Cancel

Figure C-6 Select driver from known list

Step 8: In the “Manufacturers” list, find out and select “Touch-Screen”.

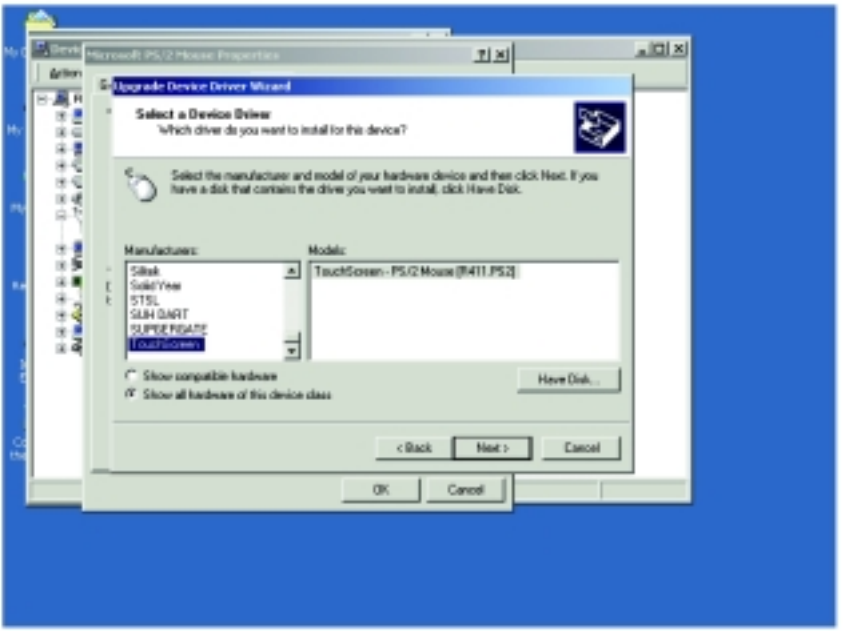

Upgrade Device Driver Wizard
Select a Device Driver
Which driver do you want to install for this device?
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the drive you want to install, click Have Disk.
Manufacturers:
Models:
TouchScreen - PS/2 Mouse [R411.PS2]
Show compatible hardware
Show all hardware of this device class
Have Disk...
< Back
Next >
Cancel
OK
Cancel

Figure C-7 Find out TouchScreen in the manufacturers list

Step 9: Click the “Next” button to install driver. Ignore the warning message appears.

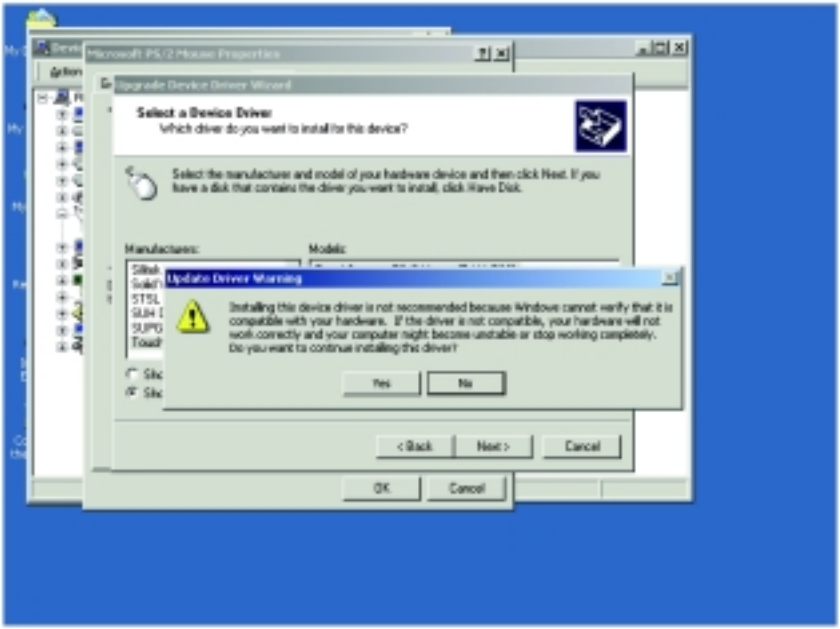

Microsoft PS/2 Mouse Properties
Upgrade Device Driver Wizard
Select a Device Driver
Which driver do you want to install for this device?
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Manufacturers:
Models:
Update Driver Warning
Installing this device driver is not recommended because Windows cannot verify that it is compatible with your hardware. If the driver is not compatible, your hardware will not work correctly and your computer might become unstable or stop working completely. Do you want to continue installing this driver?
Yes
No
< Back
Next >
Cancel
OK
Cancel

Figure C-8 Re-install the driver

Step 10: When the installation finishes the system would restart. Thus complete the setup of the touchscreen under Windows 2000.

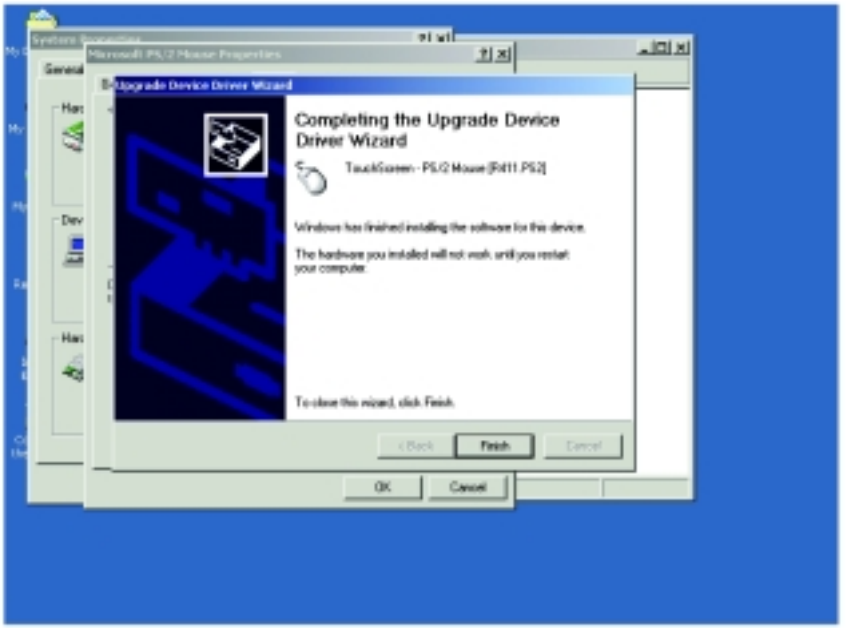

Completing the Upgrade Device Driver Wizard
TouchScreen - PS/2 Mouse [Ert11.PS2]
Windows has finished installing the software for the device.
The hardware you installed will not work until you restart your computer.
To close this wizard, click Finish.
< Back
Finish
Cancel
OK
Cancel

Figure C-9 Finish installation of touchscreen driver

APPENDIX D

Fuse Specifications

D. Fuse Specifications

The fuse used on the GOT-1150T is:

Rating: 250V AC , 5Amp.

Size: 5 x 20mm

Notice: The fuse is set to break as the input voltage exceeds 33 V_{DC} for your protection.

APPENDIX E

HDD Module Assembling/ Dismounting Guide

E.1 Item List

In the GOT-1150T HDD module these items are included:

(1) Rubber feet screws x 4: M3 x 4L, nickel coating

(2) Bracket screws x 4: M3 x 5L, Nylok

(3) Interface board screws x 2: M2.5 x 5L, Nylok

(4) Rubber feet x 4

(5) IDE adapter cable x 1

(6) HDD insulator x 1

(7) HDD bracket x 1

(8) HDD plastic case x 1

2. Assembling HDD

Step 1: Take the 2.5" IDE HDD to be assembled. Cover the HDD insulator on its PCBA side.

Step 2: Squeeze the four rubber foot screws into the rubber feet as the figure below.

Step 3: Fasten these 4 rubber feet to the HDD/insulator.

Step 4: Connect the IDE adapter cable

Step 5: Mate the HDD bracket to the HDD so that the four rubber feet are in positions. Note that the direction to mate the bracket in the following figures.

Step 6: Assemble the plastic from the opposite site to the HDD bracket.

Step 7: Look at the IDE adapter board and the plastic case. There is a reinforcement plate on the IDE adapter board, and a reinforcement slot on the plastic case.

Step 8: Insert the reinforcement plate into the reinforcement slot, and align their screw holes.

Step 9: Fasten the plate and slot by interface board screws.

Step 10: Fasten the HDD bracket and the plastic case by bracket screws.

Step 11: Unlock the HDD lock switch. Move it to the right then the lock is released. Slide the whole HDD module into the opening on the GOT-1150T. Note that the insulator (i.e. the PCBA side) should be toward users. As the HDD module dock on position move the HDD lock switch to the left. Fasten the lock switch screw to secure lock if necessary.

3. Dismounting HDD: reversing the procedure of assembling HDD,

Step 1: Unlock the HDD module, and take out the whole HDD module.

Step 2: Remove the four bracket screws.

Step 3: Remove the two interface board screws to release the reinforce-ment plate of the IDE adapter board. Take away the plastic case.

Step 4: Flip the HDD module, and take away the HDD bracket.

Step 5: Remove the four rubber feet.

Step 6: Remove the HDD insulator, then the HDD is available for maintenance or contents updating.

E.2 Item List

After properly docking of the HDD module as described in previous section, the GOT-1150T is ready for installing operating system like Microsoft Windows now. There are an adapter board and a piece of IDE cable:

Step 1: Make sure the system is still powered off after HDD module installation.

Step 2: Insert the adapter board into the CompactFlash slot on the side of the GOT-1150T.

Step 3: Connect the 44-40-40 pins IDE cable to the connector on the adapter board.

Step 4: Connect an ordinary IDE CD-ROM to either one of the two 40-pin connectors of the IDE cable. Note the CD-ROM requires external power input. This could be done by a normal PC switching power supply.

Step 5: Turn on the power of the system.

Step 6: If necessary, adjust BIOS setting so that the system boots up by CD-ROM. Then install the operating system.

APPENDIX F

BIOS Setting

F.1 Boot Devices

The GOT-1150T accepts several kinds of devices as booting media. As turning on the GOT-1150T, enter the BIOS setting utility. Choose “Advanced BIOS Features”.

Note that there are options for boot devices including first, second, third and even other boot devices. In GOT-1150T we have the defini-tions as following:

HDD-0: defined as the HDD module of the GOT-1150T.

HDD-1: defined as the CompactFlash.

CD-ROM: as external CD-ROM is connected via the CF-to-IDE adapter board, “CD-ROM” must be chosen.

F.2 PC Status Monitoring

The GOT-1150T is designed with status monitoring circuitry. In BIOS the status could be shown. However, because the GOT-1150T is fan-less, it could not activate any fan to cool down the CPU like ordinary PC does.